

How do I eliminate circuit board noise?

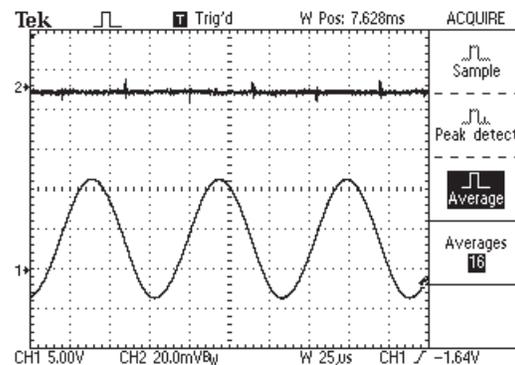
Dealing with circuit board noise can be the most persistent problem you face. And because circuits often mix analog and digital signals, transitioning between them can generate enough noise to hide important information. Separating the valuable information from the noise often poses a unique measurement challenge.

The problem: Circuit board noise

- Designs often combine high-gain analog circuits with fast digital circuits.
- Signal transition in these designs causes excessive noise and jitter in an output.
- Important features of the signal are indistinguishable from other noise on most analog oscilloscopes.

The solution: The TDS 200's Averaging Acquisition Mode

- Averaging normalizes and reduces random or uncorrelated noise.
- Averaging Acquisition Mode lets you acquire waveform data in sample mode; waveforms then can be averaged to provide a true picture of the signal and reveal the circuit board problem.



Troubleshooting Tip

Averaging with the TDS 200 Digital Real Time Oscilloscope

1. Trigger on the event to be viewed
2. Push the ACQUIRE button to set the acquisition parameters
3. Push the AVERAGE button
4. Designate the number of averages by pushing the AVERAGES button